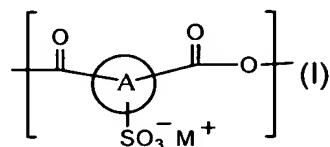
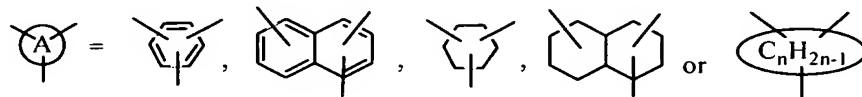


Claims

1. Polyester resin comprising at least 85 Mol-% of polyethylene terephthalate and at least 0.01 Mol-%, but not more than 5.00 Mol-% of units of the formula (I)



wherein



wherein n is an integer from 3 to 10 and

wherein

M⁺ is an alkali metal ion, earth alkali metal ion, phosphonium ion or ammonium ion and

wherein the polyester contains < 5.0 wt.-% of diethylene glycol and

wherein the polyester contains Na₂HPO₄ in an amount such that the phosphor content is 10 to 200 ppm (based on the weight of the polyester) and wherein the polyester is either free of or does not contain more than 9 ppm of NaH₂PO₄, and

wherein the intrinsic viscosity is 0.6 to 1.0.

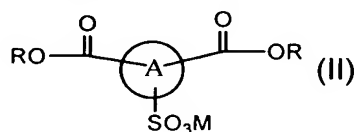
2. Polyester resin according to claim 1, wherein $\text{A} = \text{---} \text{C}_6\text{H}_4 \text{---} \text{ or } \text{---} \text{C}_{10}\text{H}_6 \text{---}$.

3. Polyester resin according to claim 1, wherein $\text{A} = \text{---} \text{C}_6\text{H}_2 \text{---}$.

4. Polyester resin according to claim 2, wherein the attachments to the phenyl ring are in 1-, 3- and 5-position and the attachment to the naphthyl ring are in 2-, 4- and 6-position.

5. Polyester resin according to claim 1, wherein M⁺ is Li⁺, Na⁺ or K⁺.

6. Polyester resin according to claim 1, wherein the Na_2HPO_4 (disodium monohydrogenphosphate) is in the form of the dodeca-hydrate ($\cdot 12 \text{H}_2\text{O}$).
7. Polyester resin according to claim 1, further comprising <10 Mol-% of modifying agents.
8. Polyester resin according to claim 1, wherein the NSR is <10 .
9. Polyester resin according to claim 1, wherein the half time of crystallization is > 150 sec at 200°C .
10. Method of manufacturing a polyester resin according to claim 1, comprising the steps of
- a) reacting terephthalic acid (TA) or C_1 - C_4 -dialkyl terephthalate; and ethylene glycol (EG); and at least 0.01, but not more than 5.00 Mol-% of a compound according to formula (II):



wherein R is hydrogen, a C_1 - C_4 -alkyl or a C_1 - C_4 -hydroxyalkyl and M

and  have the meaning given in claim 1 for formula (I) and

- b) subjecting the reaction product of a) to a polycondensation reaction to form the polymer.

* * * * *